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Centipedes (Myriapoda, Chilopoda) of Biologia Centrali-Americana: Current status of the names

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Abstract

For the last 100 years, Biologia Centrali-Americana has been an important source of information for many groups of Mexican and Central American arthropods and remains a keystone for taxonomic work. However, many included names are now out of date. I provide an updated list of names of Chilopoda as cited in Vol. 14 of Biologia Centrali-Americana to use as a complement to that work. The Chilopoda of Biologia Centrali-Americana included 52 names for 51 species and 1 subspecies. Of those, 18 names (35%) were described as new in Pocock´s work. Currently 24 remain as valid names in the same genus, 17 have been transferred to other genera and 11 have been treated as synonyms.

Keywords

Central America, Checklist, Chilopoda, Mexico, Reginald Innes Pocock, Taxonomy

Introduction

Biologia Centrali-Americana is one of the greatest works on the natural history of Mexico and Central America. The project, edited by Frederick DuCane Godman and Osbert Salvin, opened in 1879 with sections on Mammalia, Aves and Botany. The entire work was published between 1879-1915, and contains 215 parts on Zoology,

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25 on Botany, and 17 on Archaeology, grouped in 63 volumes and accompanied by numerous plates of figures (Navarrete-Heredia et al. 2006).

For the last 100 years, Biologia Centrali-Americana has been an important source of information for many groups of Mexican and Central American arthropods (Morón 1994) and remains a keystone for taxonomic work (Navarrete-Heredia et al. 2006). This is the case of non-insect arthropods (Arachnida, Chilopoda and Diplopoda), which are represented in this classic work by 1560 species (Llorente-Bousquets et al. 1996). Selander and Vaurie (1962) described Biologia Centrali-Americana a an incomparable contribution to the study of the natural history of the New World, that did much to lay the foundation for the study of the biogeography of this area.

For many years, the availability of Biologia Centrali-Americana was restricted to larger museums and libraries around the world. Recently, as part of joint efforts by the Natural History Museum in London and the National Museum of Natural History in Washington, D. C., all contents were made available free on the internet at: http://www.sil.si.edu/DigitalCollections/bca/ (Navarrete-Heredia et al. 2006). The University of Michigan joined in these efforts to help create reprinted copies reproduced directly from unreviewed and unedited digital scans made from a copy from the library collection (http://www.lib.umich.edu).

The availability of this information facilitates and promotes its use in taxonomic research, especially for those researchers interested in the centipedes. However the names of taxa described or cited in Biologia Centrali-Americana are now a century of more out of date and numerous changes in generic and species concepts have been made during that time (Navarrete-Heredia et al. 2006). Although Chilobase, a web resource for Chilopoda Taxonomy (http://chilobase.bio.unipd.it/), catalogued and updated all known centipede species of the world (Minelli et al. 2006), it did not display a list with current names from Biologia Centrali-Americana. For this reason, the aim of this paper is provide a complete list of current status of all Chilopoda names cited in Biologia Centrali-Americana to stimulate further taxonomic research and avoid confusion.

Materials and methods

All scientific names of Chilopoda cited by Pocock in Vol. 14 (1895-1910) of Biologia Centrali-Americana are recorded below in checklist format. The information incorporated in this checklist includes the number of the page where the name is cited in Pocock´s work, as well as the genus and species. The checklist was completed with author and year of each name, current order and family in which the species is placed and the current valid name.

For the assignment of the current valid names for each species, the latest taxonomic scrutiny reference was reviewed. I follow the works of Verhoeff (1925), Attems (1930), Bücherl (1942, 1974), Chamberlin (1943), Eason (1972, 1973), Würmli (1973, 2005), Koch (1985), Shelley (1997, 2006), Schileyko and Minelli (1999), Foddai et al. (2000), Lewis (2002), Chagas-Junior (2003, 2010), Chagas-

Junior and Shelley (2003), Schileyko and Stagl (2004), Shelley and Chagas-Junior (2004), Edgecombe and Giribet (2009), Edgecombe (2011), and Edgecombe and Bonato (2011). Also, all current valid names were checked with the use of the on-line database Chilobase (Minelli et al. 2006).

The Chilopoda of Biologia Centrali-Americana included 52 names for 51 species and 1 subspecies. Of those, 18 names (35%) were described as new in Pocock´s work. Currently 24 remain as valid names in the same genus, 17 have been previously transferred to other genera and 11 have been treated as synonyms.

List of the Chilopoda species described or cited in Pocock (1895-1910), Chilopoda and Diplopoda, in Vol. 14 of Biologia Centrali-Americana is shown below. Species names are organized by page number in Pocock´s work (in bold at left) and then in the sequence they appear on the page. Names in italics are as cited in the volume; bold names indicate the current valid name for each cited species, followed by its author and year, and (in brackets) by a recent reference showing this status. The order and family name at left indicates the current placement of the species.

SCUTIGEROMORPHA Pocock, 1895
Scutigeridae Gervais, 1837

1 *Scutigera linceci* (Wood, 1867): ***Dendrothereua linceci*** (Wood, 1867) (Würmli 1973; Edgecombe and Giribet 2009; Edgecombe 2011)

Pselliodidae Chamberlin, 1921

2 *Scutigera nigro-vittata* Meinert, 1886: ***Sphendononema guildingii*** (Newport, 1845) (Würmli 2005)

LITHOBIOMORPHA Pocock, 1895
Lithobiidae Newport, 1844

4 *Lithobius macroceros* Pocock, 1895: ***Sotimpius macroceros*** (Pocock, 1895) (Eason 1973)
5 *Lithobius pontifex* Pocock, 1895: ***Guerrobius pontifex*** (Pocock, 1895) (Eason 1973)
5 *Lithobius humberti* Pocock, 1895: ***Guerrobius humberti*** (Pocock, 1895) (Eason 1973)
6 *Lithobius godmani* Pocock, 1895: ***Vulcanbius godmani*** (Pocock, 1895) (Eason 1973)
7 *Lithobius salvini* Pocock, 1895: ***Vulcanbius salvini*** (Pocock, 1895) (Eason 1973)
8 *Lithobius vulcani* Pocock, 1895: ***Vulcanbius vulcani*** (Pocock, 1895) (Eason 1973)
9 *Lithobius decodontus* Pocock, 1895: ***Lithobius decodontus*** Pocock, 1895 (Eason 1973)
9 *Lithobius stolli* Pocock, 1895: ***Lithobius castaneus*** Newport, 1844 (Eason 1972)
10 *Lithobius aztecus* Humbert & Saussure, 1869: ***Neolithobius aztecus*** (Humbert & Saussure, 1869) (Chamberlin 1943)

10 *Lithobius mystecus* Humbert & Saussure, 1869: ***Lithobius mystecus*** Humbert & Saussure, 1869 (Verhoeff 1925)
11 *Lithobius toltecus* Humbert & Saussure, 1869: ***Lithobius toltecus*** Humbert & Saussure, 1869 (Verhoeff 1925)
12 *Lithobius saussurei* Stuxberg, 1875: ***Lithobius saussurei*** Stuxberg, 1875 (Verhoeff 1925)
12 *Lithobius mexicanus* Perbosc, 1839: ***Lithobius mexicanus*** Perbosc, 1839 (Verhoeff 1925)

SCOLOPENDROMORPHA Pocock, 1895
Scolopendridae Newport, 1844

14 *Scolopendra morsitans* Linnaeus, 1758: ***Scolopendra morsitans*** Linnaeus, 1758 (Shelley 2006)
14 *Scolopendra subspinipes* Leach, 1815: ***Scolopendra subspinipes*** Leach, 1815 (Shelley 2006)
14 *Scolopendra gigas* Leach, 1815: ***Scolopendra gigantea Linnaeu***s, 1758 (Shelley 2006)
15 *Scolopendra pygmaea* Pocock, 1895: ***Arthrorhabdus pygmaeus*** (Pocock, 1895) (Shelley and Chagas-Junior 2004)
15 *Scolopendra pomacea* C. L. Koch, 1847: ***Scolopendra pomacea*** C. L. Koch, 1847 (Shelley 2006)
17 *Scolopendra punctiventris* Newport, 1844: ***Hemiscolopendra marginata*** (Say, 1821) (Shelley 2006)
18 *Scolopendra tenuitarsis* Pocock, 1895: ***Scolopendra viridis*** Say, 1821 (Shelley 2006)
18 *Scolopendra heros* Girard, 1853: ***Scolopendra heros*** Girard, 1853 (Shelley 2006)
19 *Scolopendra copeana* Wood, 1862: ***Scolopendra polymorpha*** Wood, 1861 (Shelley 2006)
20 *Scolopendra copeana gaumeri* Pocock, 1895: ***Scolopendra polymorpha*** Wood, 1861 (Shelley 2006)
20 *Scolopendra sumichrasti* Saussure, 1860: ***Scolopendra sumichrasti*** Saussure, 1860 (Shelley 2006)
21 *Scolopendra viridis* Say, 1821: ***Scolopendra viridis*** Say, 1821 (Shelley 2006)
23 *Scolopendra pachygnatha* Pocock, 1895: ***Scolopendra pachygnatha*** Pocock, 1895 (Shelley 2006)
24 *Scolopendra occidentalis* Meinert, 1886: ***Scolopendra viridis maya*** Saussure, 1860 (Shelley 2006)
24 *Scolopendra nicaraguensis* Bollman, 1893: ***Scolopendra viridis*** Say, 1821 (Shelley 2006)
24 *Cormocephalus aurantiipes* (Newport, 1844): ***Cormocephalus aurantiipes*** (Newport, 1844) (Schileyko and Stagl 2004)

25 *Parotostigmus denticulatus* Pocock, 1896: ***Otostigmus (Parotostigmus) denticulatus*** Pocock, 1896 (Bücherl 1942)
26 *Rhysida immarginata* (Porat, 1876): ***Rhysida immarginata*** (Porat, 1876) (Koch 1985)
27 *Rhysida celeris* (Humbert & Saussure, 1870): ***Rhysida celeris*** (Humbert & Saussure, 1870) (Bücherl 1974)
27 *Rhysida longipes* (Newport, 1845): ***Rhysida longipes*** (Newport, 1845) (Lewis 2002)

Plutoniumidae Bollman, 1893 (Edgecombe and Bonato 2011)

28 *Theatops spinicauda* Wood, 1862: ***Theatops spinicaudus*** Wood, 1862 (Shelley 1997)

Scolopocryptopidae Pocock, 1896

29 *Otocryptops ferrugineus* Pocock, 1893: ***Scolopocryptops ferrugineus*** Linnaeus, 1767 (Chagas-Junior 2003)
29 *Otocryptops melanostoma* Pocock, 1893: ***Scolopocryptops melanostoma*** (Newport, 1845) (Chagas-Junior 2010)
30 *Scolopendrides mexicanus* Saussure, 1858: ***Newportia mexicana*** (Saussure, 1858) (Chagas-Junior and Shelley 2003)
31 *Scolopendrides stolli* Pocock, 1896: ***Newportia stolli*** (Pocock, 1896) (Chagas and Shelley 2003)
32 *Newportia azteca* Humbert & Saussure, 1869: ***Newportia azteca*** Humbert & Saussure, 1869 (Chagas-Junior and Shelley 2003)
33 *Newportia spinipes* Pocock, 1896: ***Newportia spinipes*** Pocock, 1896 (Chagas and Shelley 2003)
34 *Newportia rogersi* Pocock, 1896: ***Newportia monticola*** Pocock, 1890 (Schileyko and Minelli 1999; Chagas-Junior and Shelley 2003)

GEOPHILOMORPHA Pocock, 1895
Geophilidae Cook, 1895

36 *Geophilus aztecus* Humbert & Saussure, 1869: ***Geophilus aztecus*** Humbert & Saussure, 1869 (Foddai et al. 2000)
37 *Geophilus toltecus* Humbert & Saussure, 1869: ***Polycricus toltecus*** (Humbert & Saussure, 1869) (Foddai et al. 2000)
37 *Geophilus godmani* Pocock, 1896: ***Polycricus godmani*** (Pocock, 1896) (Foddai et al. 2000)
38 *Geophilus salvini* Pocock, 1896: ***Pachymerium salvini*** (Pocock, 1896) (Foddai et al. 2000)
38 *Geophilus stolli* Pocock, 1896: ***Polycricus stolli*** (Pocock, 1896) (Foddai et al. 2000)

39 *Chomatophilus smithi* Pocock, 1896: ***Chomatophilus smithi*** Pocock, 1896 (Foddai et al. 2000)

Himantariidae Cook, 1895

40 *Chomatobius mexicanus* (Saussure, 1860): ***Chomatobius mexicanus*** (Saussure, 1860) (Foddai et al. 2000)

Oryidae Cook, 1896

40 *Orphnaeus brevilabiatus* (Newport, 1895): ***Orphnaeus brevilabiatus*** (Newport, 1895) (Foddai et al. 2000)
40 *Notiphilides maximiliani* Humbert & Saussure, 1870: ***Notiphilides maximiliani*** Humbert & Saussure, 1870 (Foddai et al. 2000)

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